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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/903,777	07/13/2001	Thomas Schaefer	205328US0	1474

22850 7590 11/25/2002

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EXAMINER

MEDINA SANABRIA, MARIBEL

ART UNIT	PAPER NUMBER
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1754

6

DATE MAILED: 11/25/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/903,777	SCHAEFER ET AL.	
	Examiner	Art Unit	
	Maribel Medina	1754	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 July 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) 1-14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Double Patenting

1. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

2. Claims 9-14 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-7 of copending Application No. 09/903,776. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

(f) he did not himself invent the subject matter sought to be patented.

4. Claims 9-14 are provisionally rejected under 35 U.S.C. 102(e) as being anticipated by copending Application No. 09/903,776 which has a common assignee and one common inventor with the instant application.

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Based upon the earlier effective U.S. filing date of the copending application, it would constitute prior art under 35 U.S.C. 102(e), if published under 35 U.S.C. 122(b) or patented. This provisional rejection under 35 U.S.C. 102(e) is based upon a presumption of future publication or patenting of the copending application.

This provisional rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the copending application was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

This rejection may not be overcome by the filing of a terminal disclaimer. See *In re Bartfeld*, 925 F.2d 1450, 17 USPQ2d 1885 (Fed. Cir. 1991).

5. Claims 9-14 are rejected under 35 U.S.C. 102(f) because the applicant did not invent the claimed subject matter. Instant claims 9-14 are anticipated by claims 1-7 of co-pending Application No. 09/903,776. The instant application inventors are Thomas Schaefer, and Herman Siegert; however, co-pending Application No. 09/903,776 inventors are Thomas Schaefer and Thomas Krauss. It is not clear whether Thomas Krauss invented the instant claims or if the inventor is Herman Siegert.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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7. Claims 1-2, 4-6, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 3,379,500 (Albanese et al).

Albanese et al discloses a process for the synthesis of hydrogen cyanide comprising reacting ammonia, methane, nitrogen and oxygen in the presence of nets of catalysts selected from the group consisting of metals of the platinum group and alloys thereof (See col. 1, lines 14-21). The oxygen and nitrogen are present in molar ratio which satisfies the relationship $[O_2]/[N_2+O_2] > 0.21$ up to 0.40 (See col. 2, lines 40-45). Methane and ammonia are present in a molar ratio of $[CH_4]/[NH_3]$ from 1.4 to 1.05 (See col. 2, lines 50-55).

The only difference between the instantly claimed invention and Albanese et al is that Albanese et al fail to disclose that a "molar ratio of ammonia to the sum of oxygen and nitrogen obeys the following relationship: $Y = m \cdot X - a$ wherein: $Y = [NH_3]/[N_2+O_2]$; $X = [O_2]/[N_2+O_2]$; $m = 1.25$ to 1.40 ; and $a = 0.05$ to 0.14 ."

Albanese discloses in cols. 3 and 4 in the table various points which fall in the instantly claimed range, therefore if one of ordinary skill in the art sets substitutes the various points set in the examples of Albanese et al in the claimed relationship, the values of m and a will inherently be within the instantly claimed range. For example for Albanese et al example point 4, wherein $X = [O_2]/[N_2+O_2] = 0.30$ and $Y = [NH_3]/[N_2+O_2] = 0.25$ and setting the m value to 1.25, the a will be 0.133 which falls in the instantly claimed range, the same can be applied for the range of instant claim 4, by selecting the point $X = [O_2]/[N_2+O_2] = 0.40$ and $Y = [NH_3]/[N_2+O_2] = 0.44$ and setting the m value to 1.33 then a will be 0.08.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have determined by experimentation and mathematical methods the relationship

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between the concentrations of ammonia and oxygen as instantly claimed since this a very common and known method of comparison used widely in the art.

In regards to claim 5, Albanese et al disclose in col. 4, lines 40-44, that the feeding gas is preheated to 110°C. In regards to claim 6, Albanese disclose that ammonia and methane are controlled as a function of $[O_2]/[N_2+O_2]$ (See col. 3, lines 35-40).

In regards to claim 8 Albanese fail to disclose the use of an Andrussov reactor, However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used an Andrussov reactor since this a well known type of reactor used in the production of hydrogen cyanide from, methane, ammonia and oxygen-containing gaseous streams.

Allowable Subject Matter

8. Claims 3 and 7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The following is a statement of reasons for the indication of allowable subject matter: claims 3 and 7 disclose allowable subject matter. The prior art fail to disclose or suggest that molar ratio of methane to ammonia = 0.98 to 1.02, and fail to disclose or suggest that the methane-containing natural gas contains at least 88 vol.% of methane.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to the examiner Maribel Medina. The examiner can normally be reached on Monday through Friday from 8:30 AM to 4:30 PM. Any inquiry of a general nature

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or relating to the status of this application or proceeding should be directed to the receptionist


whose telephone number is 703-308-0661.

Examiner: Maribel Medina 

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November 15, 2002


Stanley S. Silverman
Supervisory Patent Examiner
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